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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,798	07/25/2003	Victor Hrid Pan	Pan 2 (LCNT/124991)	2658

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PATTERSON & SHERIDAN, LLP/
LUCENT TECHNOLOGIES, INC
595 SHREWSBURY AVENUE
SHREWSBURY, NJ 07702

EXAMINER	
VU, MICHAEL T	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/627,798	PAN, VICTOR HRID	
	Examiner	Art Unit	
	Michael Vu	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/15/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12/15/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

2. Claims 1-20 objected to because of the following informalities: "a method for assigning PN".....

The letters "PN" must be spell them out. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bayley (US 6,775,252) in view of Ngan (US 7,197,288).

Regarding **claims 1 and 13,** Bayley teaches a method for assigning PN offsets of a synchronized timing system (C3, line 1 through C4, line 55) to sectors of communication cells in a communications network (Figure #6, Cells #62, #66, Col. 11,

line 1 through Col. 12, line 63) comprising the steps of: determining a minimum delay offset between PN offsets that will avoid signal collision when the PN offsets are assigned to adjacent sectors of the same cell (Col. 11, line 29 through Col. 3, line 53); applying delay offsets of no less than the minimum delay offset between PN offsets assigned to adjacent sectors of the same cell (Col. 11, lines 29 through Col. 12, line 63);

But Bayley does not clearly teach on an applying varied delay offsets between PN offsets assigned to sectors of different cells.

However, Ngan teaches a method of spread spectrum modulation provided each sector of a cell site in the wireless communication system may be assigned a respective time delay or time offset of the signal-encoding scheme or spreading sequence, and forward link communications between an MS while within a respective sector of the cell site and the BTS are encoded with the spreading sequence offset by the sector's respective time delay. Each sector of the cell sites in the wireless communication system 100 may distinguish forward link communications from adjacent sectors, (whether an adjacent sector of the same cell site or an adjacent sector of another cell site) by encoding signals with the common spreading sequence offset by the sector's assigned time delay, in which transitions from an initial sector of a cell site to a different sector of a different cell site (Col. 6, line 63 through Col. 9, line 67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bayley, such that applying varied delay offsets between PN offsets assigned to sectors of different cells, to avoid the signal collision between adjacent sectors and/or different cells.

Regarding **claims 2 and 14,** Bayley/Ngan teach the method of claim 1 and further comprising the steps of: determining that the minimum delay offset is two (2); and applying a delay offset of two (2) between PN offsets assigned to sectors of the same cell (Col. 11, line 29 through Col. 3, line 53) of Bayley.

Regarding **claims 3 and 15,** Bayley/Ngan teach the method of claim 1 and further comprising the steps of: determining that the minimum delay offset is two (2); and applying a delay offset of at least three (3) between PN offsets assigned to adjacent sectors of the same cell (Col. 6, line 63 through Col. 9, line 67) of Ngan.

Regarding **claims 4 and 16,** Bayley/Ngan teach the method of claim 1 and further comprising the steps of: applying delay offsets of more than the minimum delay offset between the PN offsets assigned to sectors of the same cell (Col. 6, line 63 through Col. 9, line 67) of Ngan.

Regarding **claims 5 and 17,** The combination of Bayley/Ngan teach the method of claim 4 and further comprising the steps of: determining that the minimum delay offset is two (2); and applying a delay offset of at least three (3) between PN offsets assigned to sectors of the same cell (Col. 6, line 63 through Col. 9, line 67) of Ngan.

Regarding **claims 6 and 18,** Bayley/Ngan teach the method of claim 1 and further comprising the step of: applying a varied delay offset of more than the minimum delay offset between PN offsets assigned to sectors of different cells when the different cells are within five cells of each other (Col. 6, line 63 through Col. 9, line 67) of Ngan.

Regarding **claims 7 and 19,** The combination of Bayley/Ngan teach the method of claim 6 and further comprising the step of: applying a varied delay offset of at least 10

between PN offsets assigned to sectors of different cells when the different cells are within five cells of each other (Col. 1, line 15 through Col. 9, line 35) of Ngan.

Regarding **claim 8,** The combination of Bayley/Ngan teach the method of claim 6 and further comprising the steps of: determining that the minimum delay offset is two (2); and applying a delay offset of two (2) between PN offsets assigned to adjacent sectors of the same cell (Col. 6, line 63 through Col. 9, line 35) of Ngan.

Regarding **claim 9,** The combination of Bayley/Ngan teach the method of claim 6 and further comprising the steps of." determining that the minimum delay offset is two (2); and applying a delay offset of three (3) between PN offsets assigned to adjacent sectors of the same cell (Col. 6, line 63 through Col. 9, line 35) of Ngan.

Regarding **claim 10,** The combination of Bayley/Ngan teach the method of claim 6 and further comprising the steps of: applying a delay offset of more than the minimum delay offset between the PN offsets assigned to adjacent sectors of the same cell (Col. 6, line 63 through Col. 9, line 35) of Ngan.

Regarding **claim 11,** The combination of Bayley/Ngan teach the method of claim 6 and further comprising the steps of: determining that the minimum delay offset is two (2); and applying a delay offset of three (3) between PN offsets assigned to adjacent sectors of the same cell (Col. 6, line 63 through Col. 9, line 35) of Ngan.

Regarding **claims 12 and 20,** Bayley/Ngan teach the method of claim 1, and further comprising the step of." assigning the PN offsets to the sectors in a 25 spatial reuse pattern (Col. 2, lines 1-67) of Bayley.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vu whose telephone number is (571) 272-8131. The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Vu
Examiner

JEAN GELIN
PRIMARY EXAMINER